



January 16, 2004

Ms. Zenaida Tapawan-Conway
Regulatory Analyst
Energy Division
California Public Utilities Commission
(415) 703-2624
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RE: Additional Support for Proposals "Energy Efficiency Program for California's Food Processors," Reference Numbers 1335-04 (PG&E) and 1389-04 (SCE).

Dear Ms. Tapawan-Conway:

We are pleased to have the opportunity to provide the following additional support and information for our proposals, "Energy Efficiency Program for California Food Processors" in response to the letter dated January 7, 2004, and signed by Mr. Paul Clanon.

As indicated in the letter, our proposals received high Primary Scores of 76.5 and 71.0 for the PG&E and SCE proposals, respectively. As such, both proposals amply exceeded the initial 60-point cutoff; however, the CPUC staff declined to recommend funding in the first evaluation round. The proposals will now be re-evaluated alongside other proposals to allocate the \$64 million of PGC funding that is still available. The purpose of this letter is to provide additional information to assist the CPUC in the re-evaluation process.

We believe that our proposals will contribute significantly to improve the energy efficiency of an important and growing economic sector in California represented by the hard-to-reach small and medium-sized food processors. These processors have been significantly underserved with respect to energy-efficiency programs and lack the information and resources needed to implement cost-effective energy efficiency measures. In addition, the growing number of Spanish-speaking food processors lack English language skills and find very little information available in Spanish. The proposed programs will:

- Provide information on energy-savings opportunities and program benefits to small and medium-sized processors both in English and Spanish;
- Identify potential energy-efficiency opportunities through detailed telephone surveys and on-site audits conducted in English and Spanish;
- Recommend appropriate, cost-effective energy efficiency measures;

- Provide financial incentives of up to 50% of the implementation costs for recommended measures; and
- Verify measure installation and resulting energy savings.

Our overall program objectives are:

	1335-04 PG&E Food Processors	1389-04 SCE Food Processors
Electric Energy Savings	9,462,000 kWh	5,727,000 kWh
Electric Demand Savings	2,523 kW	1,527 kW
Natural Gas Savings	946,200 Therms	N/A
Cost-Effectiveness Ratios	TRC=2.82; PT=12.8	TRC=2.4; PTC=8.4

As the TRCs included in the table indicate, the programs' objectives will be attained in a very cost-effective manner. For more details, please refer to the proposals workbooks and pages 1, 6, and 27 in both our PG&E (1335-04) proposal and our SCE (1389-04) proposal.

The following are the CPUC staff's specific reasons for declining to recommend funding and our comments for your consideration:

1) Various program plans and budgets are not comprehensive and appear to be work-in-process (e.g., customer recruitment and marketing plans, qualifications/survey process, training/outreach plans, energy auditing process.)

The customer recruitment and marketing plans, the qualification /survey process, the training and outreach plans, and the energy auditing process proposed by Global and presented in detail in our two proposals are comprehensive and complete. In fact, the plans proposed by Global for these programs are based on the plans that we have designed and successfully implemented for our on-going Energy Efficiency Services for Energy Consumption and Demand Reduction for Oil Production Program. This program due to finish by June 30, 2004 has been extremely successful and has already exceeded most of its goals with currently committed participants that have or are in the process of installing the recommended energy efficiency measures. When participants that have provided a verbal commitment and are in the final stages of analysis are formally included in the program, all the program goals in terms of energy savings, demand savings, and rebates provided will be exceeded by 24 percent, 11 percent, and 10 percent, respectively.

The existing plans and procedures will be adapted as needed to the specific target market – small and medium-sized food processors. For reference, these are the highlights of each of the above mentioned plans as described in our proposals:

Marketing Plan: The marketing plan's objective is to educate small and medium-sized food processors and to make them aware of the programs' energy efficiency opportunities

and available financial incentives. Global will use a variety of marketing methods to identify and promote the program to potential participants. These methods include direct mail, workshops, articles in trade newsletters, existing websites, E- campaigns and partner/ affiliate marketing. Global will create an Internet site to increase awareness of the program and promote interest and will develop marketing collateral that includes brochures, case studies, and trade articles in English and Spanish as required by the target audience. For more details, please refer to pages 5, 7, 8-9, and 12-13 in both our PG&E (1335-04) proposal and our SCE (1389-04) proposal.

Customer Recruitment Plan. Through the management of the Agriculture and Food Technology Alliance for EPRI, Global has developed a thorough understanding of the food processing sector in California. Global will use this knowledge to analyze and segment the market to identify all small and medium-sized food processors and the geographic clusters that contain them. Global will promote the programs working with local economic development corporations and specific food associations that operate in those counties where the identified small and medium-sized food processors are located. Global has had great success in our current program with a simple three-step approach for customer recruitment:

- Initial phone contact to develop a relationship and determine interest and preliminary eligibility
- E-mail follow up with educational packet explaining the details of the program and the benefits to the participants. The package will be provided in the language of the potential participant's choice
- Phone follow up to schedule a detailed phone survey with the appropriate staff member

For more details, please refer to pages 6, 7, 10, 13-14, 20-23, and 27 in both proposals.

Qualifications/Survey Process. Again, we will follow the same process that we have successfully employed in our current program. The process starts with the three steps described above in customer recruitment and continues with three additional steps:

- Conduct the detailed survey to determine if the potential participant has adequate energy saving opportunities and adequate resources to follow through with implementation of recommended measures. The survey will be performed by telephone in English or Spanish depending on the potential participant's desire. The survey will focus on obtaining the following information: plant size and age of plant; average age of plant equipment; approximate number of motors, air compressors, blowers, chillers, boilers, and other equipment; information on energy-related purchasing policies, if any; description of current energy management efforts; information on prior audits that may have been completed, information about audit implementation or any recent energy-related capital projects; historical energy use; willingness to cost share, investment criteria; willingness to sign a document stating they are not participating in similar programs, willingness to sign a Letter of Understanding once the preliminary opportunities have been identified.
- Qualify and prioritize the opportunities by analyzing the results of the survey and estimating the potential electricity, demand, and natural gas savings.

- Contact the potential participant to schedule an on-site audit if adequate energy savings potential is found or to explain why the customer is not qualified to participate in the program.

For more details, please refer to pages 7, 10, 14-15, and 27 in both proposals.

Training /Outreach Plans. Global will provide training and outreach to promote ongoing interest in the program and help insure the sustainability of the energy savings obtained with the program. Over the course of the project Global will conduct four workshops for training and outreach purposes. The workshops will focus on two topics. The first topic will include an overview of the audit process and a “top ten” list of the most attractive energy efficiency improvements in the food processing sector. The second topic will include information on recent results from completed audits and on the program process as a way to involve more participants. Each workshop will be held over a 4-6 hour period. If necessary, workshops geared to specific industry segments, such as canned fruits and vegetables or beverages will be conducted. The workshops will provide simultaneous translation into Spanish for those participants that need it and if necessary, one of the workshops may be conducted entirely in Spanish. For more details, please refer to pages 5, 7, 14, and 27 in both proposals.

Energy Auditing Process. Global has extensive experience in conducting on-site audits as part of its current energy efficiency program, as an approved auditor under the Federal Energy Management Program, as part of other consulting engagements, and through the management of EPRI’s industrial applied research centers, including the Agriculture and Food Technology Alliance center. In addition, one of our subcontractors, Airometrix has unique expertise and extensive experience conducting assessments of compressed air systems in the food processing industry. Global’s team will conduct comprehensive energy audits of qualifying facilities. Each audit will be conducted over a one to three day period depending on the size and complexity of the facility. For each energy audit we expect to identify those energy efficiency opportunities that are specific to the food processing industry in general and to the specific industry segment in particular and other, “cross-cutting” opportunities that may be found in almost any industrial facility. With regard to cross cutting opportunities, Global’s audit will examine and identify opportunities in the following energy and mechanical systems: electric motor systems, compressed air systems, pumping systems, steam systems, sensors and controls, and lighting systems. With regard to solutions that are specific to the food processing industry, we would expect to identify opportunities to apply ozone based disinfectant technologies, membrane technologies and infrared technologies.

Global’s program focus is on the adoption of a “systems approach” to optimizing the operation of the electric motor, compressed air, steam, refrigeration, lighting, HVAC, and other process systems. This type of evaluation captures much greater savings than is possible by simply replacing components with more efficient alternatives. The audit will include an evaluation of the operating conditions, control strategies, maintenance practices, and overall efficiency of all systems that use electricity and/or natural gas as well as the performance of individual pieces of equipment, such as motors, boilers, and

compressors. For more details, please refer to pages 5, 7-8, 15-17 and 27 in both proposals.

2) The measures to be undertaken are not adequately defined and rebate amounts are unclear; energy savings assumptions are grossly estimated and appear questionable.

Our two proposals describe in detail the energy efficiency measures that will be considered in the programs, the rebate amounts, and the assumptions behind our energy savings estimates. We will provide below our comments to each of the above statements.

Energy Efficiency Measures. As described in the proposals, A variety of measures will be implemented as part of this program depending on the participating facilities' characteristics and needs. The processes used in the different industry segments vary widely. While some facilities use large amounts of steam for heating and boiling operations, others use mostly refrigeration for cold or controlled atmosphere storage or freezing of their products. Some facilities, such as those that produce beverages have processes that use mostly electricity with little natural gas consumption; others like the preserved fruit and vegetable facilities, use large amounts of electricity and natural gas in their operations. Through the audits conducted as part of the program, we will identify energy efficiency measures that will fall within the following categories:

- Electric motor systems: higher efficiency motors, variable frequency drives, magnetic couplings, motor controls
- Compressed air systems: valve calibration, compressor performance and operation improvements, leak repair, use of multiple stage compressors, resizing of piping systems
- Pumping systems: elimination of throttling valves, resizing of pipes, pump resizing or impellor trimming, new operating controls and other upgraded auxiliary equipment
- Steam systems: boiler efficiency and operation improvements, preheating of boiler feed water, waste heat recovery, distribution piping and condensate insulation, steam trap replacement/repair, condensate pumps efficiency improvements, leak repair
- Refrigeration systems: compressor efficiency and operation improvements, waste energy recovery, chilled water distribution piping insulation, leak repair
- HVAC systems: high efficiency chillers and AC units, HVAC system controls
- Sensors and controls: control technologies that improve process management and result in reduced load and/or increased output per unit of energy consumed
- Lighting: high efficiency lighting sources, lighting controls
- Specific process technologies: ozone based disinfectant technologies, membrane technologies, infrared technologies

For more details, please refer to pages 3, 15-16, and 24-25 in both proposals.

Rebate Amounts: Global proposes to pay \$0.08/kWh of energy saved up to 50 percent of the implementation cost of the recommended energy efficiency measures. The total

rebate amount used in the proposal budget is based on providing a financial incentive of 50 percent of the implementation costs. Global will not provide incentive payments that exceed a participant's project cost under any circumstances. Additionally, no single program facility, nor participant, shall receive more than 20% of the total funds allocated from the Commission to the program administrator. Global will be responsible for the certification of the proper installation of any recommended measure before a rebate is issued. For more details, please refer to pages 10-11, 17, 18, and 27 in both proposals.

Energy Savings Assumptions. As described in the proposal, given the variety of measures that will be implemented as part of these programs, and the fact that participants will bundle cost-effective measures to create projects that pass their investment criteria, it is very difficult to estimate the expected savings on a measure-by-measure basis. Rather, we have estimated the expected savings for an average facility and used that information to estimate the overall program savings. The expected savings at an average facility has been estimated based on the savings identified at a large number of medium-sized food processing facilities resulting from the implementation of energy efficiency measures identified through short on-site audits. These assessments were conducted by the Industrial Assessment Center of the U. S. Department of Energy – Office of Energy Efficiency and Renewable Energy within the last 10 years. Based on the results for the smaller medium-sized facilities included in the assessments, a range of energy consumption characteristics and energy consumption savings, demand savings, and gas consumption savings were calculated:

- Energy Consumption Characteristics:
 - Peak Demand: 80 kW to 1,300 kW
 - Annual Electricity Consumption: 200,000 kWh to 3,500,000 kWh
 - Natural Gas Consumption: 8,000 to 1,000,000 Therms
- Savings:
 - Peak Demand: 4 to 16 percent
 - Electricity Consumption: 4 to 18 percent
 - Natural Gas Consumption: 2 to 28 percent

Based on this information we have made conservative assumptions regarding the size of an average facility and the corresponding savings:

- Average Facility Energy Consumption Characteristics:
 - Peak Demand: 400 kW
 - Annual Electricity Consumption: 1,500,000 kWh
 - Natural Gas Consumption: 150,000 Therms
- Savings:
 - Peak Demand: 40 kW (10 percent)
 - Electricity Consumption: 150,000 kWh (10 percent)
 - Natural Gas Consumption: 15,000 Therms (10 percent)

For more details, please refer to pages 25-26 in both proposals.

3) *Very high administrative costs compared to similar programs.*

The administrative costs included in our proposal includes program management, development of program implementation plans, customer survey and qualification, and development of customer recruitment plan including development of collateral material (including brochures, case studies, and workshop material) for program promotion and education. As such some of these costs should probably have been included in marketing/outreach. We suggest that if the administrative costs and marketing costs are combined and compared with similar proposals they compare very favorably.

The following tables summarize the budget components as presented in the proposals (please refer to page 48 in our PG&E (1335-04) proposal and page 47 in our SCE (1389-04) proposal) and the revised components obtained when those costs that are more closely related to marketing/advertising/outreach are transferred to that budget item. As can be seen in the table, with the reallocation of costs, the administrative costs are substantially reduced and are very competitive when compared to other prescriptive rebate proposals geared toward hard-to-reach market segments.

Budget Summary for Proposal 1335-04 (PG&E)

Budget Category	Original Allocation		Revised Allocation	
	\$	% of Total	\$	% of Total
Administrative	742,212	23.47	573,279	18.13
Marketing/Advertising/Outreach	186,094	5.88	355,027	11.22
Direct Implementation	1,974,116	62.43	1,974,116	62.43
EM&V	154,980	4.90	154,980	4.90
Financing	104,871	3.32	104,871	3.32
Total Budget	3,162,273	100.00	3,162,273	100.00

Budget Summary for Proposal 1389-04 (SCE)

Budget Category	Original Allocation		Revised Allocation	
	\$	% of Total	\$	% of Total
Administrative	497,934	26.30	378,702	20.00
Marketing/Advertising/Outreach	160,016	8.45	279,248	14.75
Direct Implementation	1,043,444	55.11	1,043,444	55.11
EM&V	117,404	6.20	117,404	6.20
Financing	74,708	3.95	74,708	3.95
Total Budget	1,893,506	100.00	1,893,506	100.00

It is important to emphasize that the budgets for each of these two programs were developed under the assumption that they were independent programs, in case only one was selected. Since, the number of small and medium-sized food processors in SCE's territory is substantially lower than in PG&E's and natural gas savings cannot be addressed, an independent program implemented only in SCE's territory will be more expensive per unit of overall energy savings than the corresponding program implemented only in PG&E's territory. However, if both programs are implemented

simultaneously as one program, the administrative costs for the combined program will be lower per unit of overall energy savings than those of each of the separate programs. The combined program will be more cost-effective. The table below summarizes the budget that would be required to implement the combined program.

Budget Summary for Combined Program

Budget Category	Budget Allocation	
	\$	% of Total
Administrative	795,126	16.62
Marketing/Advertising/Outreach	618,707	12.93
Direct Implementation	2,994,569	62.58
EM&V	216,608	4.53
Financing	160,012	3.34
Total Budget	4,785,022	100.00

The combined program will require a budget that is \$270,757 lower than the budget required to implement the two programs independently. The combined program would have the following cost-effectiveness indicators: TRC= 2.54 and PT= 12.25.

4) Other proposals that are stronger and have clearer performance goals and more prudent budgets are selected in lieu of this program.

We do not understand this comment, since we were not able to identify any comprehensive prescriptive rebate program that addresses the needs of California's small and medium-sized food processors among the selected programs. A number of information-only programs were selected that address within their target markets rural and Spanish-speaking customers. We would work in coordination with those programs to promote our program. One selected program focuses on the replacement of high water use pre-rinse spray valves with more efficient models at food service facilities including restaurants, cafeterias, institutional kitchens, and food preparation companies served by PG&E and SoCalGas. Another program provides incentives to dairy producers served by PG&E and SCE to promote the installation of energy efficient milk processing equipment. Neither of these two programs addresses the needs of the diverse small and medium-sized food processors. We would coordinate with the two selected programs to avoid duplication of efforts. If necessary, we can exclude dairy producers from our target market and focus our efforts on the other segments of the food processing industry that represent a larger portion of the industry, such as those that produce preserved fruits and vegetables, beverages, bakery products, grain mill products, sugar and confectionery products, and other miscellaneous products.

5) Limited amount of available PGC funding.

Global understand that funding is finite but wish to respectfully request consideration of these Programs. We are eager and acutely interested in collaborating in breaking through

the market barriers in order to bring energy efficiency to small- and medium-sized food processors in California, and to achieve long-term energy and demand savings.

California's hard-to-reach small and medium-sized food processors would benefit enormously from a program that provides the information, training, and incentives required to understand the benefits and opportunities for energy efficiency improvements and to implement those that are cost-effective. Our program addresses all the needs of these food processors in a comprehensive and efficient manner. We look forward to having the opportunity to implement this important program.

Thank you for giving us the opportunity to provide additional information on our proposals. Please do not hesitate to contact me if you need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary Hirsch". The signature is fluid and cursive, with the first name "Gary" being more prominent than the last name "Hirsch".

Gary Hirsch
Vice President